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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,393	05/07/2001	Minobu Yazawa	027260-460	9440
7590	02/08/2006			
Platon N. Mandros BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			EXAMINER LEE, CHUN KUAN	
			ART UNIT 2181	PAPER NUMBER

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/849,393	YAZAWA, MINOBU
	Examiner Chun-Kuan (Mike) Lee	Art Unit 2181

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 07 May 2001.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-8 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 07 May 2001 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/30/2001.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Epps et al. (US Patent 6,721,316).
  
2. As per claim 1, Epps teaches a data processor for temporarily storing a plurality of types of data transmitted, and for outputting stored data of each type as a single unit, said data processor comprising:  
first storing means (tail FIFO 1330 of Fig. 13) for storing the plurality of types of data (i.e. having different quality of service (QOS) or class of service (COS)) in a predetermined order (col. 1, ll. 12-31; col. 5, l. 44 to col. 6, l. 9; col. 8, ll. 14-59 and col. 15, l. 11 to col. 16, l. 12);  
second storing means (header FIFO 1320 of Fig. 13) for storing information about the type of the data and information about continuity of data (sequence number in the header) of a same type in parallel with the data stored in said first storing means

(col. 1, ll. 12-31; col. 5, l. 44 to col. 6, l. 9; col. 8, ll. 14-59; col. 15, l. 11 to col. 16, l. 12 and col. 40, ll. 15-22);

control means (queue manager 1210 and control 1370 of Fig. 13) for reading a plurality of data of the same type continuously from said first storing means in response to the information stored in said second storing means (col. 16, l. 13 to col. 19, l. 34); and

output means (Fig. 13 ref. 1350) for outputting the data read by said control means as a single unit (col. 15, l. 11 to col. 16, l. 12).

3. As per claim 2, Epps teaches the data processor for temporarily storing a plurality of types of data transmitted, and for outputting stored data of each type as a single unit, said data processor comprising wherein said control means reads the information about the type of the data and the information about continuity of the data of the same type from said second storing means in an order stored, and subsequently reads the data corresponding to the information about the type of the data and the information about continuity of the data of the same type from said first storing means in response to the information read from said second storing means (col. 15, l. 11 to col. 19, l. 34).

4. As per claim 8, Epps teaches a data processor for temporarily storing a plurality of types of data transmitted, and for outputting stored data of each type as a single unit,

said data processor comprising wherein said first storing means and second storing means each consist of a FIFO (Fig. 13 ref 1320, 1330).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3-7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epps et al. (US Patent 6,721,316) further in view of the "Connection-Oriented Transport: TCP" and Miklos (US Patent 6,621,796).

5. As per claims 3-4, Epps teaches all the limitations of claim 1 as discussed above. Epps further teaches data processor for temporarily storing a plurality of types of data transmitted, and for outputting stored data of each type as a single unit, said data processor comprising wherein said control means reads from said second storing means the information about the type of the data (i.e. type of COS) and the information about continuity of the data of the same type (sequence number in the header) (col. 1, II. 12-30 and col. 40, II. 15-22); and said control means further reads data from the first storing mean in the order stored in synchronous with the reading of the reading of the data from the second storing means (Fig. 13 and col. 15, I. 11 to col. 16, I. 12).

Epps does not expressly teach the data processor for temporarily storing a plurality of types of data transmitted, and for outputting stored data of each type as a single unit, said data processor comprising discarding of received data utilizing a stop information, a reset flag ID and a plurality of flags, wherein the plurality of flags comprise of a reset flag and a start flag; and

    said second storing means stores, when same type data continue in said first storing means, a number of consecutive data in parallel with the data as information about continuity; and said control means reads the number of data from said second storing means, and reads the data by the number of data continuously from said first storing means.

“Connection-Oriented Transport: TCP” teaches TCP segment header comprising the plurality of flag fields utilized for control means (Fig. 3.5-2 and TCP Segment Structure on pages 2-3).

    Therefore, it would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Connection-Oriented Transport: TCP’s plurality of flag fields utilize for control means into the header to be received by the header FIFO in Epps’ data processor. Doing so would enable Epps’ data processor to properly transfer data, because Epps’ data processor conforms to the TCP protocol (Epps, col. 5, ll. 11-44).

Miklos further teaches a data packet discard mechanism comprising of:

the receiver detecting a purge request (reset), indicating a protocol data unit (PDU) (data type), comprising data packets identified as S1-S3, to be discarded (Fig. 1B and col. 2, ll. 6-30);

discarding data packets of the PDU comprise of a continuity of the same type (S1-S3 of Fig. 1B);

wherein the receiver determines the data packets to which each PDU belongs by assigning each PDU a sequence number and adding a start bit and a stop bit to the first and last PDU associated with each data packet respectively (col. 2, ll. 6-30).

Therefore, it would have been obvious to one of ordinary skill in this art, at the time of invention was made to include the discarding of Miklos' PDU when a purge request for the associated PDU is received into Epps' data processor. Doing so would further add and expand Epps' data processor to further comprise:

said first storing means stores, when reset information (purge request) indicating a data type (PDU comprising of S1-S3) to be discarded is detected from the transmitted data, the reset information successively; said second storing means stores a reset flag (purge request flag) with predetermined value in correspondence with the reset information; said control means starts, when the reset information is detected from the transmitted data, to discard the data of the type specified by the reset information, read from said second storing means the reset flag in the order stored, reads the data and the reset information from said first storing means in the order stored, reads, when reading the reset flag with the predetermined value from said second storing means, the reset information from said first storing means in synchronism with the reading of the

reset flag from said second storing means, and completes discarding the data of the type specified by the reset information read from said first storing means (Fig. 1B and col. 2, ll. 6-30);

    said second storing means successively stores the data type to be discarded and a start flag (start bit) of a predetermined value in an order; said control means starts to discard data of the type specified by the reset information, reads the start flag from said second storing means in the order stored, and completes, when the start flag of the predetermined value is read from said second storing means, discarding the data indicated by the information about the type of the data read in conjunction with the start flag (Fig. 1B and col. 2, ll. 6-30);

    said first storing means stores a portion of the reset information in a predetermined order as a one word (PDU comprising of S1-S3); said second storing means stores a reset flag ID (S1-S3, identifying the data packets to be discarded) indicating a position of the portion of the reset information in the reset information; and said control means starts to discard the data of the type specified by the reset information, reads from said second storing means the reset flag and the reset flag ID in the order stored, reads the reset information from said first storing means in the order stored, reads, when reading the reset flag with the predetermined value from said second storing means, the portion of the reset information from said first storing means in synchronism with the reading of the reset flag from said second storing means, and completes discarding the data of the type specified by the portion of the reset

information read from said first storing means and the reset flag ID (Fig. 1B and col. 2, II. 6-30);

    said second storing means stores, when same type data continue in said first storing means, a number of consecutive data (S1-S3) in parallel with the data as information about continuity; and said control means reads the number of data from said second storing means, and reads the data by the number of data continuously from said first storing means (Fig. 1B and col. 2, II. 6-30); and

    said second storing means stores, when same type data continue in said first storing means, stop information (stop bit) of a predetermined value in parallel with final data of the consecutive data as information about continuity; and said control means reads stop information corresponding to the data from said second storing means, and reads the data from said first storing means continuously until the stop information of the predetermined value is read from said second storing means (Fig. 1B and col. 2, II. 6-30), therefore providing a more effective discard mechanism of data packets by implementing the sender-initiated purge signaling (Miklos, Abstracts and col. 1, I. 12 to col. 3, I. 17).

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571)272-0671. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571)272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.K.L.  
01/31/2006



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SUPERVISORY PATENT EXAMINER  
2/2/06